(d) January 1, 2006

16. Additional Provisions

(a) This Agreement is contractually binding on the Parties; provided however, that the only recourse any Party asserting a breach of this Agreement has is the filing of a petition with the FCC or, except as to Section 7, to seek relief in equity from a court of competent jurisdiction in the District of Columbia.

(b) Notwithstanding any other provision contained in this Agreement, no Party or any third party shall have the right to sue any other Party in any court in the U.S. or elsewhere for monetary relief either (1) for a breach of the Agreement or (2) for any other cause of action arising out of performance or nonperformance with this Agreement.

(c) The Parties agree to act in good faith to implement and perform their obligations under this Agreement.

(d) This Agreement may only be changed or modified by a written amendment signed by all of the Parties.

(e) This Agreement supersedes any and all prior agreements among the Parties as such agreements apply to the issues herein.

This Agreement may be executed by the Parties in counterparts and shall have the same effect as if all of the signatures were affixed together hereto.

CONSTELLATION COMMUNICATIONS, INC.

Bruce D. Krasik
Title: Chairman
Date: 8 Sept. 94

MOTOROLA SATELLITE COMMUNICATIONS, INC.

_____
Title:_____
Date:_____

MOBILE COMMUNICATIONS HOLDINGS, INC.

_____
Title:_____
Date:_____

TRW INC.

_____
Title:_____
Date:_____

This Agreement may be executed by the Parties in counterparts and shall have the same effect as if all of the signatures were affixed together hereto.

CONSTELLATION COMMUNICATIONS, INC.

Title:_____
Date:_____

MOTOROLA SATELLITE COMMUNICATIONS, INC.

Title:_____
Date:_____

MOBILE COMMUNICATIONS HOLDINGS, INC.

Title: Vice President
Date: September 8, 1994

TRW INC.

Title:_____
Date:_____

This Agreement may be executed by the Parties in counterparts and shall have the same effect as if all of the signatures were affixed together hereto.

CONSTELLATION COMMUNICATIONS, INC.

_____
Title:_____
Date:_____

MOTOROLA SATELLITE COMMUNICATIONS, INC.

Michael D. Kennedy
Title: VP, Regulatory Relations
Date: 9-8-94

MOBILE COMMUNICATIONS HOLDINGS, INC.

_____
Title:_____
Date:_____

TRW INC.

_____
Title:_____
Date:_____

This Agreement may be executed by the Parties in counterparts and shall have the same effect as if all of the signatures were affixed together hereto.

CONSTELLATION COMMUNICATIONS, INC.

_____
Title:_____
Date:_____

MOTOROLA SATELLITE COMMUNICATIONS, INC.

_____
Title:_____
Date:_____

MOBILE COMMUNICATIONS HOLDINGS, INC.

_____
Title:_____
Date:_____

TRW INC.

_____
Title: Assistant Secretary
Date: Sept. 8, 1994

Report

of the

MSS Above 1 GHz Negotiated Rulemaking Committee

April 6, 1993

Attachment 1
To IWG1 Report (Annex 1)

MSSAC-41.6
(Final)
IWG1-81
(Final)

Final Report

of

The Majority

Of The Active Participants

of

Informal Working Group 1

To

Above 1GHz

Negotiated Rulemaking Committee

April 6, 1993

3. DESCRIPTION OF TECHNICAL SHARING CRITERIA.

3.1. Interference Sharing Criteria.

During coordination under the full band interference method, system operators would agree on changes to the parameters of their systems to reduce the amount of interference caused to other systems to the agreed upon levels. However, such agreements would only be necessary with respect to the limited number of parameters identified in this section, and each system operator would be able to optimize its system in terms of capacity, cost and service quality within these overall sharing constraints. Each of the parameters on which agreement is to be reached during the coordination process is discussed in the following subsections.

3.1.1. Maximum Downlink PFD Spectral Density. In the downlink direction, the key interference parameter is the total amount of interfering power presented to the receiving mobile terminal, and this interference level can most readily be defined as a maximum permissible PFD spectral density value. Because of the constantly changing geometry of LEO systems and the number of satellites visible at any particular moment at a point in the service area being coordinated, the value of maximum PFD spectral density should be specified as the maximum PFD spectral density that is permitted at any point in the service area from the aggregate of all satellites in the interfering system. It may be desirable to average the maximum permissible PFD spectral density limit over an appropriate and agreed upon period of time to recognize that certain peak system configurations would occur for only small percentages of the time, and such peak configurations and/or operating conditions should be excluded from calculating the aggregate maximum system PFD spectral density. Polarization effects shall also be considered when calculating the maximum PFD spectral density.

This maximum PFD spectral density per system is determined on the basis of achieving coordination between multiple satellite systems and is independent of other PFD spectral density constraints on a per satellite basis that are used as the bases for international coordination of MSS downlinks with terrestrial services under Resolution 46 and the trigger values of RR 2566. This matter is discussed in Section 7 of this Report.

3.1.2. Maximum Aggregate EIRP Areal Spectral Density. In the uplink direction, the key interference parameter is the total interference power presented at the satellite receiver input, and this value can be most conveniently controlled in the coordination process by setting a limit on the aggregate EIRP areal spectral density simultaneously radiated by all user terminals for a single

interfering system that may be located within an appropriately sized reference area within the service area being coordinated. Because of different beam sizes used in the various proposed satellite systems, such aggregate EIRP areal spectral density levels may have to be specified for a set of reference averaging areas that approximate the range of beam sizes being coordinated. Some time averaging may also be desirable to account for short-term peak situations due to random access channels and power control system transients.

It should be noted that these aggregate EIRP areal spectral density limits are independent of the maximum EIRP areal spectral density limits imposed on each user terminal as a result of sharing with other services in the band, i.e. either -15 dBW/4 kHz or -3 dBW/4 kHz depending on the transmitting frequency. This matter is discussed in more detail in Section 7 of this Report.

3.1.3. Polarization. The sense of polarization used should be specified, although only circular polarization is assumed for the user terminal antennas. While the amount of intersystem isolation due to use of different sense of circular polarization in the service link that can be assumed in coordination may be small, any amount of isolation can provide a usable increase in system capacity under full band interference sharing conditions.

3.1.4. Frequency plans. System operators would be required to specify their satellite frequency plans in terms of the individual radio frequency channels (center frequency and bandwidth) used in their system.

3.1.5. Code Structures and Associated Cross-correlation Properties. There is no shortage of available pseudorandom noise codes that can be selected by a CDMA system operator to insure satisfactory operation of their system. However, there is a small probability that system operators can independently select codes that have cross-correlation artifacts that produce more interference than would be the case of the flat gaussian noise usually assumed in the intersystem interference calculations. For this reason, coordination between system operators would include identification of their code structures to insure that the codes selected have sufficiently good cross-correlation properties that the effects of intersystem interference are no worse that flat gaussian noise.

3.1.6. Antenna Beam Patterns. Antenna beam patterns (number of beams, pointing angle of maximum gain, sidelobe gain patterns and beam array layout), together with frequency plans, can be used to represent the distribution of PFD spectral/EIRP areal spectral density across service area and the assigned frequency band.

3.1.7. Signal Burst Structures. If a system uses a form of transmission that does not radiate a continuous signal, the time dependent characteristics of the transmission should be described in such terms as peak/average power levels, duty cycle, framing and guard time structure, burst synchronization characteristics, etc.

3.1.8. Overall Interference Allowance. The total level of interference from other licensed MSS systems in the band that can be tolerated by a single system.